

Monroe County Youth Risk Behavior Survey

2001 Report

Prepared by: Cheryl A. Utter, Manager of Health Administration Melissa Gray-Alkins, Community Health Assistant Monroe County Health Department

TABLE OF CONTENTS

IN	TRODUCTION	1
SU	JRVEY RESULTS BY CATEGORY	
:	Behaviors Resulting in Unintentional Injuries Behaviors Resulting in Intentional Injuries – Violence	3
•	Behaviors Resulting in Intentional Injuries – Suicide Risk Tobacco Use	5
	Alcohol and Other Drug Use Sexual Behavior	7
•	Physical Activity and Nutrition	10
	ONCLUSIONS	11
	PPENDIX	12

INTRODUCTION

The Monroe County Youth Risk Behavior Survey was conducted in public high schools for the fifth time in the spring of 2001. The Youth Risk Behavior Survey, designed and validated by the Centers for Disease Control and Prevention (CDC), has been conducted nationally and in several states and localities since 1990. The goals of the survey are to assess health risk behaviors among high school students, to monitor changes in these behaviors over time, to broadly evaluate the impact of preventive programs and to monitor progress in the achievement of relevant Objectives for the Year 2010 presented in the report: *Healthy People 2010.* Local survey results assess the health risks of public high school students in Monroe County. These data can be compared to those of other localities. These data provide Monroe County schools, service providers and health planners a base on which to develop interventions to reduce behaviors contributing to disease, injury and premature death in the young adult population. Repeated surveys have been used to evaluate (in the aggregate) the results of these interventions, measure change over time and benchmark achievements with New York State and the United States.

Methodology

A random sample of public high school students in Monroe County was developed with a projected 5% margin of error and 80% response rate. A random sample of classes within each school was selected and students from these classes participated in the survey voluntarily. Once classes were selected, substitution was not allowed.

All of the school districts in Monroe County participated in the survey. From a population of 33,794 students in 31 schools, 1,838 students were selected to be surveyed. Of these, 1,752 or 95.3% completed the survey.

Through a contract with a data processing firm, data were scanned and entered into Epi-Info and Excel files for analysis. Responses to each question are presented in the appendix along with responses to previous surveys.

Eight districts conducted the survey at the district level in 2001 in addition to contributing to the overall county sample. These districts will be able to describe the level of risk behaviors of adolescents in their own districts and compare district results with the county data.

Data Comparison

2001 vs. 1999

There appeared to be some differences in the distribution of age, grade and gender of the students in the 2001 survey when compared to the 1999 survey. To determine whether this apparent difference had an impact on the survey results, the rates for several key questions were adjusted using a direct standardization method with the demographic profile from the 1999 sample used as the standard.

When adjusted for age, grade and gender, rates in the 2001 survey did not vary significantly from the crude rates. It was concluded that the apparent differences in distribution of these demographic variables had very little impact when comparing the results of the two surveys.

Differences in the responses to individual questions from the 1999 and 2001 surveys were tested for statistical significance. Questions where statistically significant differences were found are highlighted in a discussion of each category in this report.

Monroe County vs. New York State and the United States

The most recent survey data available at the state and national level are from 1999. A state and national survey was conducted in the spring of 2001 but the data are not yet compiled. Comparisons to national data for 1999 are included in relevant sections of this report.

Organization of the Report

The report is divided into a narrative section and an Appendix. The narrative provides a summary for each category of questions as they compare with the Healthy People 2010 objectives. The Appendix contains the responses to the questions on the surveys from 1992 - 2001.

BEHAVIORS RESULTING IN UNINTENTIONAL INJURIES

Unintentional injuries are the leading cause of death among adolescents in Monroe County and nationally. The vast majority of these injuries are preventable. Seat-belt use has been estimated to reduce the risk of fatal motor vehicle injury by 45%. The use of appropriate types of helmets has been shown to substantially reduce the risk for head injury in both motorcycle and bicycle crashes. In both of these types of crashes, head injury is the leading cause of death. Alcohol and drug use among adolescents often contributes to unintentional injuries.

Table 1
Status of Risk Behaviors That Result in Unintentional Injuries
1999 Monroe County Data, 1999 U.S. Data, 2001 Monroe County Data
Compared with 2010 Target

% of students reporting they:	<u>U.S.</u> 1999	Monroe County 1999	Monroe County 2001	<u>2010</u> <u>Target</u>
Sometimes, most of the time, or always wore a seatbelt when riding in a car driven by someone else	83.6%	86.0%	88.4%2	92%
Sometimes, most of the time, or always wore a bike helmet when riding a bike in the past year	14.7%	23.2%1	22%	
Sometimes, most of the time, or always wore a helmet when riding a motorcycle in the past year	62.0%	72.9%1	70.7%	79%
During the past month, rode in a car/vehicle driven by someone who had been drinking alcohol	33.1%	30.7%	27.2%	
During the past month, drove a car/vehicle when they had been drinking alcohol	13.1%	13.3%	10.9%	

Source: Monroe County Health Department and the Centers for Disease Control and Prevention

Selected Unintentional Injury Risk Measures, Monroe County Trends, 1992-2001

The proportion of youth wearing bike helmets increased during the 1990s. The rate of drinking and driving and the rate of riding with someone who had been drinking were stable.

¹Significantly different compared to U.S.

² Monroe County 2001 data significantly different than Monroe County 1999 data

BEHAVIORS THAT RESULT IN INTENTIONAL INJURIES - VIOLENCE

The consequences of youth involvement in violence are serious whether youth are perpetrators or victims. Guns markedly increase the severity of the physical consequences of violent behavior. Physical fighting frequently occurs prior to many injuries. Forced sex has been associated with suicide ideation and attempts, alcohol abuse, and an increased risk for chronic disease.

Table 2
Status of Risk Behaviors that Result in Intentional Injuries - Violence
1999 Monroe County Data, 1999 U.S. Data, 2001 Monroe County Data
Compared with 2010 Target

% of students reporting they:	<u>U.S.</u> 1999	Monroe County 1999	Monroe County 2001	<u>2010</u> <u>Target</u>
Carried a weapon in the past month	17.3%	14.3%	16.2%	
Carried a gun in the past month	4.9%	5.9%	6.9%	
Engaged in a physical fight in the past year	35.7%	$30.2\%^{1}$	$34.2\%^2$	33%
Were hit, slapped or physically hurt on purpose by a boyfriend or girlfriend in the past year	8.8%	12.5%1	11.2%	
Were ever forced to have sexual intercourse	8.8%	9.1%	9.2%	
Carried a weapon on school property in the past month	6.9%	8.2%	6.5%	6%
Engaged in a physical fight on school property in the past year	14.2%	12.5%	14.2%	
Were threatened/injured on school property 1 or more times in the past year	7.7%	8.3%	9.5%	
Did not go to school on one or more days in the past month because they felt unsafe	5.2%	5.2%	8.7%²	

Source: Monroe County Health Department and the Centers for Disease Control and Prevention

Selected Intentional Injury Measures - Violence, Monroe County Trends, 1992-2001:

During the 1990s, rates of weapon carrying and physical fighting declined. In 2001, more students indicated that they felt unsafe at or on the way to or from school and more students said they had engaged in a physical fight in the twelve months preceding the survey.

¹Significantly different compared to U.S.

²Monroe County 2001 data significantly different than Monroe County 1999 data

BEHAVIORS THAT RESULT IN INTENTIONAL INJURIES - SUICIDE RISK

Good mental health is important for adolescents to lead productive lives, to have fulfilling relationships with other people, and to cope with adversity. Adolescents suffering from mental health problems commonly engage in risk behaviors such as substance abuse, early sexual activity and violence.

Adolescents at higher risk for suicide commonly have a history of depression, past suicide attempts, a family history of mental health problems, drug and alcohol abuse, family disruption and/or physical and psychiatric conditions.

Table 3
Status of Risk Behaviors that Result in Intentional Injuries - Suicide Risk
1999 Monroe County Data, 1999 U.S. Data, 2001 Monroe County Data
Compared with 2010 Target

% of students reporting that in the past 12 months, they:	<u>U.S.</u> 1999	Monroe County 1999	Monroe County 2001	<u>2010</u> <u>Target</u>
Felt so sad or hopeless almost every day for 2 or more weeks in a row that they stopped doing their usual activities	28.3%	25.2%	26.9%	
Seriously considered suicide	19.3%	$16.2\%^{1}$	16.6%	
Made a specific plan about how they would attempt suicide	14.5%	15.7%	14%	
Attempted suicide	8.3%	$12.6\%^{1}$	$16.6\%^2$	
Attempted suicide that resulted in an injury that needed treatment by a doctor or a nurse	2.6%	4.8%1	5.2%	1%

Source: Monroe County Health Department and the Centers for Disease Control and Prevention

Selected Intentional Injury Measures - Suicide Risk, Monroe County Trends, 1992-2001:

The proportion of youth that reported considering suicide or planning to attempt suicide declined during the 1990s. While the proportion of youth reporting that they had attempted suicide during the past year remained stable through 1997, it increased in 1999 and again in 2001.

¹Significantly different compared to U.S.

² Monroe County 2001 data significantly different than Monroe County 1999 data

TOBACCO USE

Tobacco use is considered the leading preventable cause of death in the United States. It is known to cause heart disease, certain types of cancer, and chronic lung disease. Some research has shown that cigarette smokers are more likely to drink alcohol and smoke marijuana compared to non-smokers. Preventing tobacco use among adolescents is a major focus of national, state and local tobacco control efforts. Tobacco addiction usually begins during adolescence. Among U.S. adults who ever smoked daily, 82% tried their first cigarette before age 18 years, and 53% became daily smokers before they turned 18 years old (Healthy People 2010).

Table 4

Status of Tobacco Use Risk Behaviors
1999 Monroe County Data, 1999 U.S. Data, 2001 Monroe County Data
Compared with 2010 Target

% of students reporting they:	<u>U.S.</u> 1999	Monroe County 1999	Monroe County 2001	<u>2010</u> <u>Target</u>
Were current smokers (smoked cigarettes in the past month)	34.8%	31.4%	25.8% ³	16%
Smoked on >= 20 of the past 30 days	16.8%	14.2%	11% 3	
Bought cigarettes without showing proof of age ¹	69.6%	52.4% ²	41.9%	
Smoked a whole cigarette before age 13 years old	24.7%	$20.6\%^{2}$	19.9%	
Smoked in school in the past month	14.0%	13.7%	12.1%	
Ever tried to quit smoking (of ever daily smokers)	76.0%	73.0%	N/A^4	84%
Used smokeless tobacco in the past month - (males)	14.2%	10.3%	6.2%4	
Smoked cigars in the past month	17.7%	16.7%	$11.7\%^{3}$	8%

Source: Monroe County Health Department and Centers for Disease Control and Prevention

Selected Tobacco Use Measures from the Monroe County YRBS - 1992-2001 Trends

The rate of youth smoking rose between 1992 and 1997. In 1999 and 2001, the rate declined. Over the last 10 years, smokeless tobacco use among males declined, as did the rates of smoking in school. The proportion of under age youth who were able to purchase cigarettes without showing proof of age also declined. The measure for cigar smoking, new in 1999 showed a significant improvement in 2001. All other measures remained stable.

¹Current smokers under age 18, who bought cigarettes in a store or gas station in the past 30 days

²Significantly different compared to U.S.

³ Monroe County 2001 data significantly different than Monroe County 1999 data

⁴ The measure of attempting to quit smoking changed between 1999 and 2001 from ever attempting to quit to attempting to quit in the last 12 months. This measure will be tracked over time to aid in evaluating the impact of tobacco cessation programs for youth.

ALCOHOL AND OTHER DRUG USE

Adolescent drug use has been associated with many dangerous and destructive behaviors including suicide, driving under the influence, skipping school, fighting, stealing, and engaging in high-risk sex. Injecting illegal drugs is a major risk factor for AIDS (Healthy People 2010).

Alcohol use and abuse are common among adolescents. The age of onset of drinking is a strong predictor of whether an individual develops alcohol dependence. About 40% of those who start drinking at age 14 years or under, develop alcohol dependence at some point in their lives. Excessive drinking has been associated with high-risk sexual behaviors and increased rates of injuries and deaths from motor vehicle crashes, assaults, and self-inflicted injuries (Healthy People 2010).

Table 5
Status of Drug Use
1999 Monroe County Data, 1999 U.S. Data, 2001 Monroe County Data
Compared with 2010 Target

% of students reporting they:	<u>U.S.</u> 1999	Monroe County 1999	Monroe County 2001	<u>2010</u> <u>Target</u>
Used marijuana in the past month	26.7%	23.1%	25.2%	0.7%
Used marijuana in their lifetime	47.2%	$40.7\%^{1}$	41.6%	
Used cocaine in the past month	4.0%	4.4%	4.5%	
Used cocaine in their lifetime	9.5%	7.1%	7.7%	
Never used any illegal drugs ² in their life (high school seniors)	N/A	45.9%	38.4%	56.0%
Used inhalants ³ in the past month	4.2%	5.5%	5.4%	
Used inhalants ³ in their lifetime	14.6%	12.6%	11.1%	
Used heroin in their lifetime	2.4%	3.7%	4.3%	
Used methamphetamines in their lifetime (crystal, speed or ice)	9.1%	7.0%	6.5%	
Injected illegal drug use in their lifetime	1.8%	3.3%	3.8%	
Used other illegal drugs in lifetime (ecstasy, LSD, mushrooms, PCP)	N/A	14.3%	15.5%	
Used steroids without a doctor's prescription in their lifetime	3.7%	4.0%	4.8%	

Source: Monroe County Health Department and the Centers for Disease Control and Prevention

¹Significantly different compared to U.S.

²Includes marijuana, cocaine, heroin, methamphetamines, injecting illegal drugs, other illegal drugs

³Sniffed glue, breathed the content of aerosol spray cans, inhaled any paints or sprays to get high

Table 6 Status of Alcohol Use 1999 Monroe County Data, 1999 U.S. Data, 2001 Monroe County Data Compared with 2010 Target

% of students reporting they:	<u>U.S.</u> 1999	Monroe County 1999	Monroe County 2001	2010 Target
Ever drank one or more drinks of alcohol in their lifetime ¹	81.0%	78.8%	74.8%³	
Drank at least one drink in the last month ¹	50.0%	48.0%	$43.9\%^3$	
Never drank at least one drink of alcohol in their lifetime (high school seniors) ¹	N/A	13.1%	10.4%	29%
Engaged in binge drinking in the past month (high school seniors) ²	41.6%	38.8%	42.7%	

Source: Monroe County Health Department and the Centers for Disease Control and Prevention

Selected Alcohol and Drug Use Measures from the Monroe County YRBS - 1992-2001 Trends

The rate of lifetime marijuana use increased during the 1990s, while the rate of current marijuana use fluctuated. An improvement was made in the proportion of youth who reported they used inhalants to get high. The rate of binge drinking among high school seniors worsened during the 1990s. Other measures of drug and alcohol use remained stable until 2001 when rates of ever drinking and drinking in the last month declined.

¹ Includes: beer, wine, wine coolers, and liquor. Doesn't include drinking sips of wine for religious reasons

²Drank 5 or more drinks on one or more occasions

³ Monroe County 2001 data significantly different than Monroe County 1999 data

SEXUAL BEHAVIOR

Early sexual activity is associated with unintended teen pregnancy, sexually transmitted diseases and negative effects on social and psychological development. Pregnancies that occur during the teen years place both the mother and infant at risk for social and economic consequences.

Adolescents are at higher risk of contracting sexually transmitted diseases compared to adults due to a number of factors. Compared to adults, adolescents are more likely to engage in unprotected sex, have multiple sex partners, and choose sex partners who are at high risk. The consistent, correct use of latex condoms by males is effective in reducing the risk of HIV and other sexually transmitted diseases.

Table 7
Status of Sexual Behaviors
1999 Monroe County Data, 1999 U.S. Data, 2001 Monroe County Data
Compared with 2010 Target

% of students reporting they:	<u>U.S.</u> 1999	Monroe County 1999	Monroe County 2001	<u>2010</u> <u>Target</u>
Ever had sex in their lifetime	49.9%	38.9%	38.8%	
Were currently sexually active	36.3%	$25.5\%^{1}$	26.1%	
(had sex during the past 3 months)				
Had sexual intercourse before age 13 years	8.3%	$6.7\%^{1}$	7.5%	
Have had four or more sex partners in their lifetime	16.2%	$10.4\%^{1}$	10.6%	
Abstained from sex in the past 3 months	27.3%	29.4%	30.0%	
(of those who ever had sex)				
Never engaged in sexual intercourse in life		62.1%	60.6%	75%
(ages 15-17 years)				
Abstained ² from sexual intercourse or if currently sexually active, used a condom the last time they had	85.0% ³	88.1%	89.2%	95%
sex	. 	50 5 0 /		
Used a condom during the last time they had sex	65.5%	60.3%	64.9%	
(of currently sexually active males)				
Used a condom during the last time they had sex	50.7%	50.6%	59.2%	
(of currently sexually active females)				

Source: Monroe County Health Department and the Centers for Disease Control and Prevention

Selected Sexual Behavior Measures, Monroe County Trends, 1992-2001:

All measures in this area were unchanged in 2001. However, in the 1990s, the proportion of Monroe County youth who reported they ever had sexual intercourse declined. Those who reported they were currently sexually active also declined. The proportion of youth who reported they engaged in sex before age 15, and those who ever had 4 or more sex partners declined. Condom use among males declined. The remaining measures were stable.

¹Significantly different compared to U.S.

²Never had sex, or had sex, but abstained in the past 3 months

³1997 data

PHYSICAL ACTIVITY AND NUTRITION

Participation in regular physical activity has many benefits for adolescents including weight control, building and maintaining muscle and bones, and improving psychological well being. Regular physical activity in the long-term decreases the risk of developing heart disease, diabetes, colon cancer and hypertension. Research has shown that excessive television viewing is related to obesity.

Healthy eating during adolescence lays the foundation for health in adulthood. It is important for optimal growth and development and to prevent obesity.

Obesity acquired during adolescence, may persist into adulthood and increases the risk of developing chronic diseases later in life. Obesity during adolescence increases the risk of developing high cholesterol, abnormal glucose tolerance and high blood pressure, and often results in adverse social and psychological consequences. Dissatisfaction with body image and unhealthy dieting practices are common among adolescents.

Table 8
Status of Risk Behaviors Related to Physical Activity
1999 Monroe County Data, 1999 U.S. Data, 2001 Monroe County Data
Compared with 2010 Target

Compared with 2010 ranget							
% of students reporting they:	<u>U.S</u> 1999	Monroe County 1999	Monroe County 2001	<u>2010</u> <u>Target</u>			
Engaged in moderate physical activity for at least 30 minutes on 5 or more of the preceding 7 days	26.7%	25.0%	24.9%	30%			
Engaged in vigorous physical activity that promotes cardio-respiratory fitness for at least 20 minutes on 3 or more of the past 7 days	64.7%	69.0%1	66.8%	85%			
Engaged in strengthening exercises ² on 3 or more of the preceding 7 days	53.6%	52.8%	53.9%				
Participate in daily school physical education	29.1%	$3.2\%^{1}$	3.6%	50%			
Played on one or more sports teams in the past year	55.1%	60.4%1	58.4%				
Watch ≤ 2 hours of television on an average school day	57.2%	67.5% ¹	65%	75%			

Source: Monroe County Health Department and the Centers for Disease Control and Prevention

¹Significantly different compared to U.S.

²Exercises to strengthen or tone muscles such as push-ups, sit-ups, or weight lifting.

Table 9
Status of Risk Behaviors Related to Nutrition
1999 Monroe County Data, 1999 U.S. Data, 2001 Monroe County Data
Compared with 2010 Target

% of students reporting they:	<u>U.S.</u> 1999	Monroe County 1999	Monroe County 2001	<u>2010</u> <u>Target</u>
Exercised to lose weight or avoid gaining weight during the past month	58.4%	60.6%	59.4%	
Consumed fewer calories/foods low in fat to lose weight or avoid gaining weight during the past month	40.4%	42.6%	41.7%	
Did not eat for 24 hours or more to lose weight in the past month	12.6%	11.0%	11.9%	
Took diet pills, powders or liquids, without doctor's advice, to lose weight during the past month	7.6%	7.3%	7.2%	
Vomited or used laxatives to control weight during the past month				
Males	2.2%	$4.7\%^{1}$	3.6%	
Females	7.5%	6.4%	$9.2\%^{2}$	
Consumed 3 or more glasses of milk on the day prior to				
the survey		1		
Males		$32.1\%^{1}$	28.9%	
Females		21.2%	18.7%	
Consumed 5 or more servings of fruits and or vegetables on the day prior to the survey	23.9%	28.0%1	28.4%	

Source: Monroe County Health Department and the Centers for Disease Control and Prevention

Selected Physical Activity and Nutrition Measures from the Monroe County YRBS - 1992-2001 Trends:

Most of the Youth Risk Behavior Survey Questions pertaining to physical activity, food intake and dieting practices were new in 1999, so trend data are available for only three of the measures. The proportion of youth engaging in strengthening activities remained stable during the 1990s. Rates of those reporting using diet pills/powders/liquids without physician supervision, fluctuated. The proportion of females reporting vomiting or using laxatives to lose weight decreased in 1999 but increased again in 2001.

Note: Data gathered about height and weight contained a number of errors and will not be reported.

¹Significantly different compared to U.S.

² Monroe County 2001 data significantly different than Monroe County 1999 data

CONCLUSIONS

Analysis of the fifth Monroe County Youth Risk Behavior Survey indicates that Monroe County public high school students continue to engage in behaviors that place them at risk of injury, illness and death and behaviors that contribute to poor health status as adults.

There are many areas where Monroe County youth were doing better than those surveyed nationally in 1999. These areas include:

- wearing helmets when biking
- wearing helmets while riding motorcycles
- weapon carrying
- fighting
- suicide ideation
- showing proof of age when purchasing cigarettes
- age of smoking onset
- lifetime use of marijuana
- ever having had sex
- current sexual activity
- age of onset of sexual activity
- number of sexual partners
- rates of aerobic exercise
- participation in sports teams, and
- milk, fruit and vegetable intake.

There were also areas where Monroe County youth fared worse than those surveyed nationally in 1999. These areas include:

- Being hit, slapped or physically hurt on purpose by a boyfriend or girlfriend in the last year
- Attempting suicide
- Attempting suicide resulting in an injury needing treatment by a doctor or a nurse
- Participating in daily school physical education
- Watching <= 2 hours of television on an average day
- Using vomiting or laxatives to control weight (males)

The Year 2000 Health Objectives for the Nation were recently modified and published in *Healthy People* 2010. The standards for achievement were increased for most of the goals for adolescents. In 2001, Monroe County public high school students met none of these goals.

To monitor changes in youth risk behaviors in Monroe County, the survey will be conducted at the county level every 2 years.

This document can also be viewed or downloaded from the Monroe County Health Department Web page on the County's website at http://www.monroecounty.gov/.

ACKNOWLEDGEMENTS

The successful completion of the 2001 Monroe County Youth Risk Behavior Survey depended on the work of the Health Department project coordinator, Melissa Gray-Alkins and the assistance of BOCES and the public high schools in the county.

District Data Entry and Support: Joanne Lang, BOCES I

District Liaisons:

Each of the school districts contributed significant effort to assure the survey was completed. Thanks go to:

Laura Kaufman, Brighton

Larry Spring, Churchville Chili Sandi Janiga, East Rochester

Peter Kuehn, Gates Brian Bartalo, Hilton Rob Thomas, Penfield Francis Siraguse, Pittsford Terry Hedges, Spencerport

Susan Preston Mauks, Wheatland Chili

Ann Brown, RCSD Leslie Flyer, RCSD Mike Roche, RCSD Barbara Brown, RCSD Stephanie Bemish, RCSD Karen Breslawski, Brockport

Valerie Burton, Matt Laniak, East Irondequoit

Angel Curley, Jim Zumbo, Fairport

Don Nadolinski, Greece Sue Weigand, Honeoye Falls

Liz Konar, Pittsford

Mike Dupre, Rush Henrietta Elizabeth McCusker, Webster Rita Dulaney, West Irondequoit Ann Marie Lipari, RCSD

Wanda Belli, RCSD Maria Mendicino, RCSD Jerome Watts, RCSD Betty Faison-King, RCSD